

DRAFTPROPOSED RESPONSE ⁴⁵²
Ser. No. 07/633,453

2

coding for at least a portion of a protein targeted for inhibition so as to substantially block translation of said base sequence and inhibit synthesis of said targeted protein after introducing into the cells of said organism, and

at least a portion of said oligodeoxyribonucleotide being a more stable form so as to enhance resistance against degradative enzymes in order to limit degradation in vivo.

61. (amended) A method of developing oligodeoxyribonucleotide therapeutic agents for use in in vivo inhibition of the synthesis of one or more targeted proteins in a cell without substantially inhibiting the synthesis of non-targeted proteins, comprising the steps of:

determining the base sequence of an organism's messenger ribonucleic acid, said base sequence coding for at least a portion of said protein targeted for inhibition;

synthesizing an oligodeoxyribonucleotide, the nucleotide sequence of which is substantially complementary to at least a portion of said base sequence and capable of hybridization with said messenger ribonucleic acid base sequence coding for at least a portion of a protein targeted for inhibition so as to substantially block translation of said base sequence and inhibit synthesis of said targeted protein after introducing into the cells of said organism, and

at least a portion of said oligodeoxyribonucleotide being a more stable form so as to enhance resistance against degradative enzymes in order to limit degradation in vivo;

cross hybridizing said oligodeoxyribonucleotide against messenger ribonucleic acid from at least one species different from said organism; and

selecting that fraction of the oligodeoxyribonucleotide [oligoribonucleotide] which does not so hybridize so as to increase the specificity of the selected oligodeoxyribonucleotide to messenger ribonucleic acid unique to said organism.

Please cancel claim 62.

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